

# SOFTWARE

## SOFTWARE FUNDAMENTALS

### Knowledge of technology

#### *Key terms*

- software (application), shareware, public domain, freeware, commercial software, integrated software,
- user manual, registration card, serial number,
- warranty,
- copyright,
- license (multi-user, single user, site license),
- compression/decompression,
- back-up,
- back door ,
- upload/ download,
- wizard, template
- GUI, command-line interface,
- voice recognition.

### Social and ethical issues

Students must study and evaluate the social and ethical issues involved in the use of software. These may include:

- bug-free software
- software piracy
- interfaces adapted for the disabled, (i.e. equality of access)
- language independence of GUIs, making computers accessible to a very wide range of users, including those with special needs, and very small children
- use of password protection to prevent unauthorized access
- globalization of software

## SHAREWARE

Well, we are all quite familiar with the word since we all use shareware programs to some degree. Shareware is basically **"try before you buy"** software. Unlike software marketed through normal retail channels, where you are forced to pay for the product before you've even seen it, the shareware concept lets you try a program for a period of time before you buy it. Once you have tried a shareware program, you know whether it will meet your needs before you pay for it.

"Shareware software is typically obtained free of charge, either by downloading from the Internet or on magazine cover-disks. A shareware program is accompanied by a request for payment, and the



Winzip is a great shareware program.

software's distribution license often requires such a payment."(Wikipedia.org,2007)

## Open source - Same as shareware?

Free/open source software and shareware are similar in that they can be obtained and used without monetary cost. Usually shareware differs from free/open source software in that requests of voluntary shareware fees are made, often within the program itself, and in that source code for shareware programs is generally not available in a form that would allow others to extend the program. Notwithstanding that tradition, some free/open source software authors ask for voluntary donations, although there is no requirement to do so. Free/open source software is usually compatible with the strict ASP shareware guidelines.

## Crippleware?! - What exactly is this?

Sometimes, paying the fee and obtaining a password results in access to expanded features, documentation, or support. In some cases, unpaid use of the software is limited in time or in features — in which case the software is vernacularly called **crippleware**. Some shareware items require no payment; just an email address, so that the supplier can use this address for their own purposes.

## So what types of shareware are out there and what platforms support it?

Shareware is available on all major computer platforms including Microsoft Windows, Macintosh, and Linux. Titles cover a very wide range of categories including: business, software development, education, home, multimedia, design, drivers, games, and utilities.



Shareware distribution gives users a chance to try software before buying it. **If you try a shareware program and continue using it, you are expected to register (purchase) the program.** With registration, you get anything from the simple right to continue using the software to an updated program with printed manual. The Shareware concept makes fitting your needs easier, because you can try before you buy. And because the overhead is low, prices are low also. Shareware has the ultimate money-back guarantee - **if you don't use the product, you don't pay for it!**

## Is it for free?

Prices for shareware vary from program to program, but you will always find the price mentioned somewhere in the files you obtain when you downloaded or were given an evaluation copy. Most of the time the price for the program will be found in a .TXT or .DOC or READ.ME. For Windows programs, this information will probably be found in the .HLP file.

Copyright laws apply to both Shareware and commercial software, and the copyright holder retains all rights.

On the Internet, World Wide Web sites such as PC Shareware, Inc. offers an excellent resource for downloading shareware programs.

To conclude, shareware is a great thing, it offers you a free access to the programs and a huge variety of products. The beauty of it is that you can try it out before you purchase the product. There is a risk though. Shareware usually is free and hackers and web programmers might see it as a potential to implant their viruses. Remember to always check the free files that you download before opening them onto your desktop

## PUBLIC DOMAIN

The expression "public domain" is usually used in relation to the Internet to describe the "materials which are freely available for public usage or download". Strictly speaking however, items which are truly "public domain" are only those for which the copyright has been abandoned or lost or has expired. This does not always apply to material referred to as "public domain" on the Internet. So what is the big deal about it and what is it exactly?

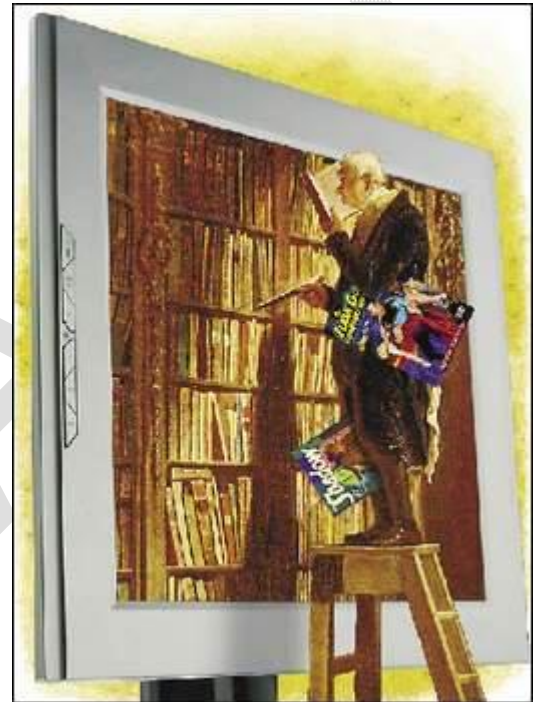
With the beginning of the Internet it became possible for anybody with access to this worldwide network to "post" copyrighted or otherwise-licensed materials freely and easily. This made people believe that if something is available through a free source, it must be public domain. Once such material was available on the net, it **could be**

**perfectly copied among thousands or even millions of computers very quickly and essentially without cost.**

First of all **freely obtained does not always mean free to distribute.** Let's say i have downloaded a song from a site Mp3.com and then i have shared it with my friends. If someone gives a person stolen or "freely obtained" file or let's just say any type of document that travels around the web, it is still stolen, even if the receiving person was not aware of it.

Another issue is that publishing anything on the Internet has become extremely popular. According to U.S. law, an author's original works are covered by copyright, even without a formal notice incorporated into the work. Technically, any Internet posting (such as blogs or emails?) could be considered copyrighted material unless stated otherwise.

Many people are using the public domain to widen the possibilities to the internet users. They make the materials more accessible to those users by putting them into an electronic form and then publishing it on the internet where they could be used as a free source of information (under no restrictions). For example, Project Gutenberg and LibriVox coordinate the efforts of people who do this work.



# FREWARE

Freeware is software that you can download off the Internet and **use for free**. However freeware may not always provide much help in terms of support if the software goes wrong, so there is always a certain amount of risk when using freeware.

Usually it is **the programming that is offered at no cost and is a common class of small applications available for downloading and use in most operating systems**. Because it may be copyrighted, you may or may not be able to reuse it in programming you are developing. The least restrictive "no-cost" programs are not copyrighted programs that are in the public domain. When reusing public domain software in your own programs, it's good to know the history of the program so that you can be sure it really is in the public domain.



So what is usually happening is that authors of freeware often wants to **"give something to the community"**, but also wants credit for their software and to retain control of its future development. Sometimes when programmers decide to stop developing a freeware product, they will give the source code to another programmer or release the product's source code to the public as free software.

The only criterion for being classified as "freeware" is that the software must be made available for use for an unlimited time at no cost. Everything created with the freeware programs **can be distributed at no cost** (for example graphic, documents, or sounds made by user). Visit [Freeware.com](http://Freeware.com) if you want to find out about many interesting programs that are available out on the net.

There are many variations for freeware. Those might include:

- Crippleware? (if its free but it ceases some of its functions after a period of time)
- Shareware (if there is no price to pay for the software)
- Public domain software (it remains in the free zone of the internet)
- Free software ( free to study or to be modified)

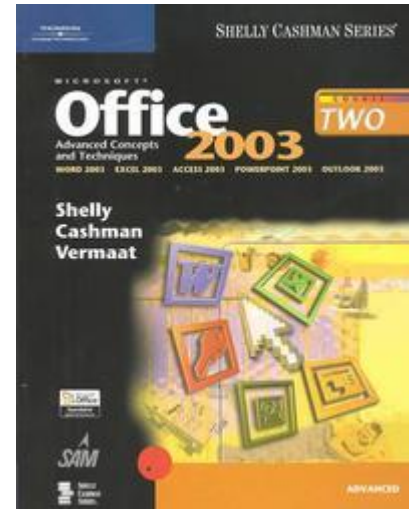
## Freeware vs Free Software?

Freeware contrasts with free software, because of the different meanings of the word "free". **Freeware is gratis and refers to zero price**, versus free software that is described as "liber", which means free to study, change, copy, redistribute, share and use the software in any purpose. However, many programs are both freeware and free software. They are available for zero price, provide the source code and are distributed with free software permissions.

## COMMERCIAL SOFTWARE

Commercial software refers to any software that is sold for monetary gain by the seller. According to Dictionary.com, the definition of commercial is: "prepared, done, or acting with sole or chief emphasis on salability, profit, or success: a commercial product;"

That is why its called commercial, since it pertains to commerce. Before the internet, most software was commercial software, because pretty much the only way one could get software was to buy it from a company who makes it. It is because of this that commercial software at the time was given the name "shrinkleware", due to the sprinkle wrapped box the software came in. Many times commercial software is also proprietary software, software that comes with restrictions. This is because these software come with legal or technical restrictions that have to be followed.



After the introduction of the internet and its mass use, commercial software began to die down. This was mainly because of the availability of free software that can be downloaded from the internet that is just as good as commercial software. So many people thought, why pay for it? Still, commercial software is widely used, in cases such as operating systems, and high-grade software.

Examples of Commercial Software are: Lotus, Microsoft Office Applications, Word Perfect, AutoCad, 3D Studio Max

## INTEGRATED SOFTWARE

In the broad sense, integrated software refers to any software that combines more than one function or is able to do more than one task. More specifically, integrated software is any software application that combines word processing, database management, spreadsheet functions, and communications. Integrated software is usually used in businesses such as retail stores or grocery stores, that need to keep inventory, manage products, sales, deliveries, and so on. A company by the name of integrated software specializes in, as you guessed, integrated software. Their about us is as follows:

"Integrated Software (IS) delivers sophisticated communication and advertising information solutions. IS uses document management, database publishing, and digital asset management technologies to support clients. IS specializes in mass merchandising in retail and grocery markets. We support enterprises with any number of store locations which require information management for highly diverse pricing models, geographies, cultures, and demographics. We develop and deliver tools, processes, and integrated systems to assist professionals in advertising, production, merchandising, and market communications." –integrated software  
Accessed: March 3, 2007

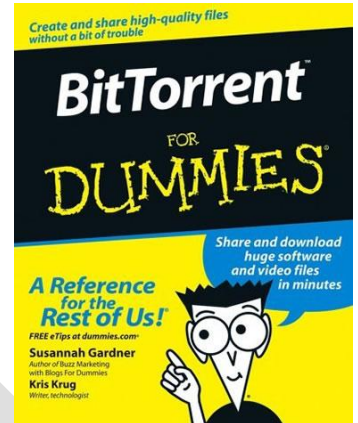


# USER MANUAL REGISTRATION CARD SERIAL NUMBER

## User Manual

A user manual, also known as a user guide, is a document that explains to an inexperienced user how to use/ operate something. These manuals can either be printed and published or downloaded online. User manuals are usually associated with several different types of computer software, hardware, and electronic goods. They are typically written by technical writers. Technical writers are professionals who write, create, maintain, and design many different types of technical documentations, online help sites, or user manuals. Although in other cases, user manuals can be written by programmers, project managers, and technical staff.

Most user manuals contain both text and images. Sometimes when dealing with computer applications, the manual will include screenshots of the application to assist the user. Hardware manuals include diagrams that name the specific functions of each of the object's parts.



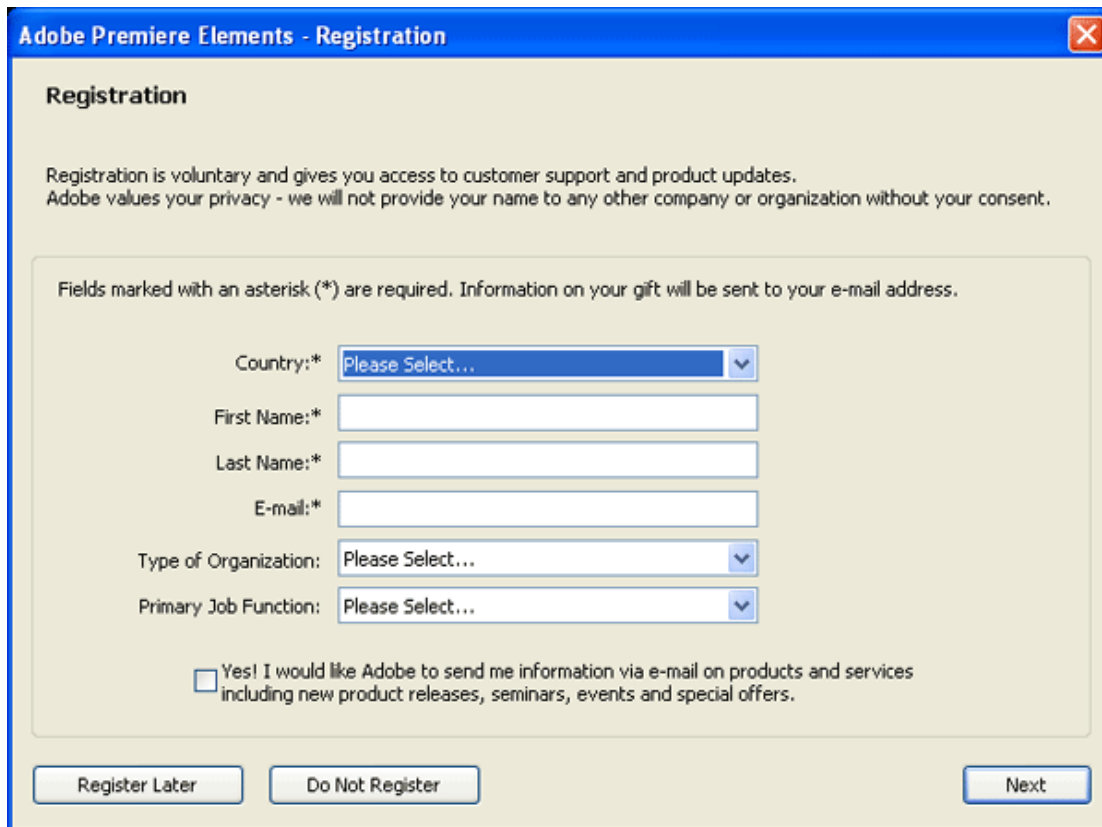
The basic sections of a user manual:

- A preface – informs the user how to best use the user manual
  - A contents page
  - The actual guide - a detailed guide of the main functions of the system/ object and how to use them
  - Troubleshooting – gives examples of possible errors or problems and how to fix them
  - A FAQ – A section for frequently asked questions and along with their answers
  - A further help and contact section
  - Glossary or Index
- 
- More info: [usersmanualguide.com](http://usersmanualguide.com) has many online user manuals to download or just check out
  - To check out what an online manual looks like, [click here](#)

## Registration Card

Registration cards are like questioners where the user enters information about them. Some sites or products require certain registrations in order to access their content. But other sites do not and it is entirely voluntary.

The data entered is stored in a database. It can be used to prove the identity of a user and for customer support. It can also give a registered user certain benefits that an unregistered user does not receive, such as product updates. Personal data can also be used for advertising and targeting purposes. That's why sometimes you find your Inbox full of e-mails telling you to buy this or that product



The image shows a screenshot of the 'Adobe Premiere Elements - Registration' dialog box. The title bar is blue with the text 'Adobe Premiere Elements - Registration' and a red close button. The main area has a light beige background. At the top, it says 'Registration'. Below that, a paragraph states: 'Registration is voluntary and gives you access to customer support and product updates. Adobe values your privacy - we will not provide your name to any other company or organization without your consent.' A note below reads: 'Fields marked with an asterisk (\*) are required. Information on your gift will be sent to your e-mail address.' The form contains several fields: 'Country:\*' with a dropdown menu showing 'Please Select...'; 'First Name:\*' with a text box; 'Last Name:\*' with a text box; 'E-mail:\*' with a text box; 'Type of Organization:' with a dropdown menu showing 'Please Select...'; and 'Primary Job Function:' with a dropdown menu showing 'Please Select...'. At the bottom left, there is a checkbox labeled 'Yes! I would like Adobe to send me information via e-mail on products and services including new product releases, seminars, events and special offers.' At the bottom right, there are three buttons: 'Register Later', 'Do Not Register', and 'Next'.

**Registration**

Registration is voluntary and gives you access to customer support and product updates.  
Adobe values your privacy - we will not provide your name to any other company or organization without your consent.

Fields marked with an asterisk (\*) are required. Information on your gift will be sent to your e-mail address.

Country:\* Please Select...

First Name:\*

Last Name:\*

E-mail:\*

Type of Organization: Please Select...

Primary Job Function: Please Select...

☐ Yes! I would like Adobe to send me information via e-mail on products and services including new product releases, seminars, events and special offers.

Register Later Do Not Register Next

## Serial Number

A serial number is a set of unique characters (letters, numbers, and spaces) that can identify a single product. It is mainly used for traceability and warranty purposes. They are usually found next to the product's barcode unless otherwise stated.

Sometimes programs installed on one's computer will not start, or will only allow a certain trial period, unless the serial number is entered to register the product. These serial numbers are sometimes called, 'CD keys'.

Serial numbers are useful for several reasons. First of all, they assist in 'quality control'. For example, if a defect or malfunction is found in the production of a certain batch of products, the serial number can identify which products were affected. They also reduce the amount of theft and counterfeiting of products. Since serial numbers are recorded, counterfeited products can be identified or tracked.



Model Number

Serial Number

Example of a serial number

Macromedia Product Activation

Enter your serial number

[Where's my serial number?](#)

**Need a serial number?**

Buy one online using your web browser.

Type your serial number into this screen to activate your software.

[? Activation Help](#)

[Privacy Policy](#)

[Feedback](#)

You must enter the serial number to register the product

## WARRANTY

As most of us know **Warranties** (also known as guarantees) come in many different flavors. Wikipedia.org (2007) defines the warranty as "an obligation that an article or service sold is as factually stated or legally implied by the seller, and that often provides for a specific remedy such as repair or replacement in the event the article or service fails to meet the warranty. A breach of warranty occurs when the promise is broken, i.e., a product is defective or not as should be expected by a reasonable buyer."



But we do not want to focus on customer and business transactions and guarantees. Instead I will give you a brief information about how the PC warranties work and what exactly are they.

We think of warranties as a guarantee

Usually the warranty will include specific restrictions that the seller and the buyer sign on the paper. Many computer parts such as hard drives, monitors and internal hardware all have their warranties , because if something goes wrong, let's say, the motherboard just burns or the CPU overheats the seller is supposed to repair, replace or obtain a new piece of hardware if the desired product is on a warranty period. The statutory manufacturer's **warranty covers the purchase for a year**. It will be one of the following, or a mixture of them - **On Site**, **RTB** (Return to Base), or **C&R** (Carriage and Return), which can usually be made into an **extended warranty** covering varying periods for an extra fee.



Some important things to consider when obtaining the warranty or when just dealing with it in the real world situations.

1. Warranties come in many types. Most of them will protect the monitor, the case itself, all of its internal parts, but may not cover the keyboard or mouse, so always read the warranty before you buy a computer, especially an extended warranty, which, if possible, you should avoid purchasing, because they are usually a waste of money. Many people fork out for a five-year extended warranty for a computer or other goods when it is highly likely to be redundant technology before the end of the warranty, and pay almost as much for it as for the goods themselves. Indeed, with the falling price of electronics, they often pay more for the extended warranty than it would cost to replace the purchase a few years later.
2. When you buy the entire PC from the companies like **Dell, HP** or **Alienware** the warranty usually includes the entire unit as a whole, there is no specified warranty on the monitor not different parts. A set is a set and it has to be "plumbed" with the warranties, usually on the case of the PC or the bottom of the laptop case. If something goes wrong with the computer, if you open the case without permission, the warranty will be rendered voided immediately. If the computer company gives you permission to remove a component and install a replacement that it will send to you without rendering the warranty void, obtain the permission in writing before you do anything, and then charge the company for your labor.
3. Another issue is the **extended warranties**. Those tend to last much longer like 3 up to 5 years because during major transactions from big companies or when buying laptops or desktop sets, when something breaks down in the PC the company could repair it but usually the broken component has to be sent back to the technician to check what is wrong. If a 12-month on-site repair guarantee is included in the price of the computer from a major supplier, when making comparisons, always remember to add the price of an extended warranty to the price charged by another supplier that requires the computer to be returned to base for repairs during the guarantee period. Then, the latter firm's prices might not look quite so tempting. Otherwise, you will have to pay for the transportation to the repair site - and lose the use of the computer while it is away for repairs.

**Sorry!**  
**No Product Image**  
**Available**



Acer's 3 years Extended Guarantee.

This is especially the case with laptop and notebook computers, most of which would have to be returned to the supplier or manufacturer for repairs during the whole of their useful lives. Their innards are so like clockwork that only a highly-qualified technician knows how to work with them.

Extended warranties for desktop computers tend to be rip-offs, because you would usually pay an independent technician much less in repair costs over the same period that a typical extended warranty costs to provide repair cover. But repairs and upgrades to laptop computers are usually very expensive, so it is advisable in this case to buy an extended warranty. But do your calculations before you sign on the dotted line and hand over your cash.

Also, laptop and notebook PCs are difficult to upgrade. The most you can do is add PC card support - modems, hard disk drives, network support, etc. You cannot obtain devices such as a video or sound card in PC Card form for a laptop or notebook PC.

The last most important thing to consider. Don't be fooled by the guarantees themselves. Always remember that you are buying expensive equipment and that there is no shortage of suppliers keen to sell you second-rate, non-upgradable, skimpy or old kit. It always pays to be as knowledgeable as possible before you part with your money. Anyone who buys an old computer that cannot be upgraded to an acceptable standard, will be in a world of hurt when it refuses to run the latest software or accommodate hardware? upgrades

## COPYRIGHT

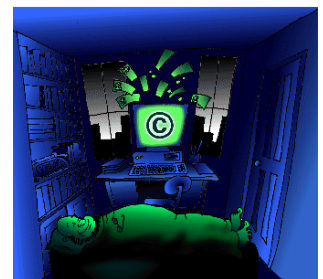
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### What is copyright?

Copyright is the legal protection given to authors which protects them against unauthorized copying of their work. This means that if you can **see it**, **hear** it and/or **touch** it - it may be protected. If it is an essay, if it is a play, if it is a song, if it is a funky original dance move, if it is a photograph, HTML coding or a computer graphic that can be set on paper, recorded on tape or saved to a hard drive, it may be protected. Copyright laws grant the creator the exclusive right to reproduce, prepare derivative works, distribute, perform and display the work publicly. Exclusive means only the creator of such work, not anybody who has access to it and decides to grab it. ""

### How long does copyright last and how can I create it?""

The **Berne Convention** establishes a general and minimum period that lasts the life of the author and fifty years after his (or her) death. Cinematographic works and photographic works have a minimum period of protection of 50 and 25 years upon the date of creation, respectively.



The creation of copyright starts at the moment when the author creates his or her work and signs it with a copyright symbol on the piece. The signature and symbol show that the person signed on the document is its creator. Moreover, the document will have a date on it, which says when was the document created. In many cases, there are more dates on one document and that is because the author has added some material to his/her work or when some editing was done.

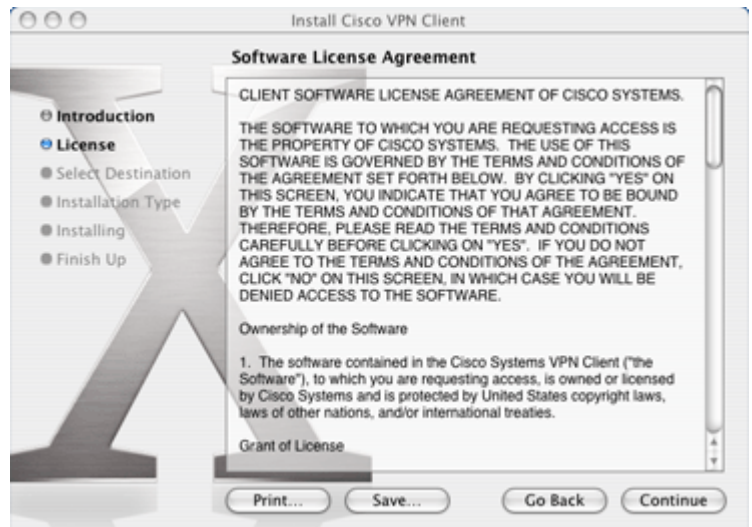
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## The copyright symbol

If there is anything else you would like to know about copyright, here is a useful link:  
[http://www.cyberbee.com/cb\\_copyright.swf](http://www.cyberbee.com/cb_copyright.swf)

## LICENCE

A software license refers to the permissions, rights, and restrictions associated with certain software, or a component of that software. The use of the software without the license gives the owner of the software the opportunity to sue and is an infringement on copyright laws. When installing software, the user must accept to a policy and terms agreement, and if they do not, they cannot install the software.



A single user license is used, as you can guess, for one person. This pretty much means a license for home/private use. This is registered to one name, and with this license, the software can be installed only on one computer. Sometimes you can have up to five installations for a software during single use, in case you need to reinstall, or have multiple computers. A multiuser license is one that is primarily used for organizations such as a company or school. These licenses cost much more, depending on how many people will be using the software. A site license is a license that gives permission for a specific action to occur at a specific location on the web. A software site license refers to a license that does not restrict the use of the software to a number of users, but rather the site or location where the software is being used. So for example, one could get a site license for a company site, where all the employees can use the software.

## COMPRESS

**What is the compression and decompression of data?**

### Compression of Data

Data are being compressed while being sent or downloaded. The reason why they are being compressed is because they can be transmitted faster over slower Internet connections, or take up less space on a back- up media.

### How do we compress and decompress the data:

To give you an example of how the compression of data works, I will use the word **computer**. The word computer is consisted of **8** letters.



Let's say I will compress the word computer to **comp**, which consists only of **4** letters, therefore the size is **two** times smaller than if I used the uncompressed computer. Of course, the person receiving the compressed data needs special software, which can read the compressed data and (translate) decompress them, so the person can read, see or hear data which will make sense. The most commonly used software is the WinZip.

**Advantages:** Reduces space on disc or bandwidth.

**Disadvantages:** "Compressed data must be decompressed to be viewed (or heard), and this extra processing may be detrimental to some applications. For instance, a compression scheme for video may require expensive hardware for the video to be decompressed fast enough to be viewed as it's being decompressed."

The design of data compression schemes therefore involve trade-offs between various factors, including the degree of compression, the amount of distortion introduced and the computational resources required to compress and uncompressing the data."

[www.wikipedia.com](http://www.wikipedia.com)

#### Resources:

[www.wikipedia.com](http://www.wikipedia.com)

## BACK-UP

### What are backups?

Backups are a secondary copy of data. Nowadays, during the era of internet, it is very easy to lose data from the computer. A hacker may delete them or they may get lost by mistake, therefore people store the data they don't want to lose on different media and many times at different locations, such as IBM Egypt, which has three backups at three different places, in Downtown, 6th of October City and London.

**Types of backup (storage) media** ''' Magnetic Tape'''- Has long been the most commonly used backup, but become replaced by new technology. ''' Hard disc'''- High capacity, low access times, availability and ease of use.

**Optical disc**- CD's and DVD's. Cheap way of storing media and the size is around 700MB for CD's and 4.7GB for DVD's. Both CD's and DVD's can be re-writable, that means they can be used many times over and over again.

**Floppy disc**- We can't see floppy discs very often anymore, because their storing capacity is very small. ''' Solid state storage'''- Also known as flash memory,



thumb drives, USB keys, compact flash, smart media, memory stick, Secure Digital cards, etc., these devices are relatively costly for their low capacity, but offer excellent portability and ease-of-use. Even the Apple's Ipod Nano is based on a 4 and 8GB flash memory.

**Remote backup service**- This means backing up data on the internet itself. The great advantage is that it is very cheap or for free and an unlimited amount of data can be stored there. People don't have to worry about losing it. The hard drive many of us use can be easily damaged, for example when a house burns down, the hard disc burns down as well, but the internet doesn't. Backing up on the internet is becoming the most commonly used backup.

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All backed up data can be used and changed after being stored by the owner. There are also **software** designed to make a copy of data by themselves, which save our time and work, because they just automatically back up everything we save or anything specific we tell the software to save.

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Since hard drive space has cost, **compressing** the data will reduce the size allowing for less drive space to be used to **save money**. The data are zipped in a different format, therefore their size becomes smaller and they take less space. Therefore you can store more data on a small capacity hard drive, then if the data were in its original format.

## BACK DOOR TRAPDOOR

A backdoor in a computer system (or cryptosystem or algorithm) is a method of bypassing normal authentication or securing remote access to a computer, while attempting to remain hidden from casual inspection. The backdoor may take the form of an installed program (e.g., Back Orifice or the Sony/BMG rootkit backdoor installed when any of millions of Sony music CDs were played on a Windows computer), or could be a modification to a legitimate program. (Wikipedia.com,2007)

So what the back door does is that it accesses the main platform (usually Windows, Macs are not that popularly attacked) and finds usually a missing piece of code. When companies release the patches to fix up the mistakes they did in the software, the backdoor programmers usually take the advantage of it by making back door viruses and programs.

However, attackers often use back doors that they detect or install themselves, as part of an exploit. In some cases, a worm is designed to take advantage of a back door created by an earlier attack. For example, Nimda gained entrance through a back door left by Code Red. Whether installed as an administrative tool or a means of





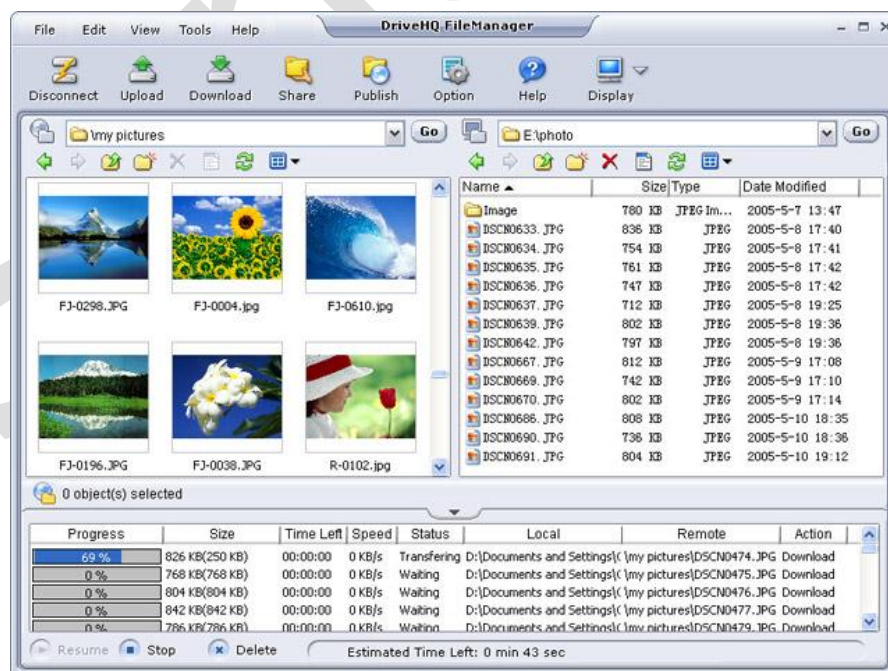
attack, a back door is a security risk, because there are always crackers out there looking for any vulnerability to exploit.

To give you an understanding of how the backdoor works read out this real life quote: "Think of approaching a building with an elaborate security system that does bio scans, background checks, the works. Someone who doesn't have time to go through all that might just rig up a back exit so they can step out for a smoke -- and then hope no one finds out about it." (?????)

So to conclude, back doors could be really malicious in their usage, almost every person with some computer programming skills could use those so called "exits" to take over your machine.

## UPLOAD

Uploading and downloading both refer to the transfer of data from one location to a remote server. Uploading is sending information from you to a remote server. Downloading is receiving information from a remote server. So from this, you can define a download as any file, data, or software that you received from a remote server. Similarly, any upload is a file, data, or software that you sent to a remote server. Many programs and applications utilize uploading and downloading that are very familiar to many people such as Peer to Peer sharing programs, file hosting websites, and the iTunes music store. Nowadays people can upload or download data not only to and from their PC, but from their phones or PDA's, and even gaming consoles. Without the transfer of data through downloading and uploading, the web could not exist.



# TUTORIAL

## TUTORIALS, TRAINING & WIZARDS, TEMPLATES

Social and ethical Issues and Knowledge of technology

### *Knowledge of Technology*

#### Key terms

- tutorial software
- training software, wizards and assistants,
- help menu and help features,
- "Read Me" files.

#### Training

1. "the education, instruction, or discipline of a person or thing that is being trained"
2. "to make proficient by instruction and practice, as in some art, profession, or work" (Dictionary.com 2006)

#### Tutorials

Pertaining to the computer;

1. "Programmed instruction provided to a user at a computer terminal, often concerning the use of a particular software package and built into that package."
2. "A manual explaining how to use a particular software package or computer system." (Dictionary.com 2006)



#### Wizards

- "An interactive help utility that guides the user through a potentially complex task, such as configuring a PPP driver to work with a new modem. Wizards are often implemented as a sequence of dialog boxes which the user can move forward and backward through, filling in the details required. The implication is that the expertise of a human wizard in one of the above senses is encapsulated in the software wizard, allowing the average user to perform expertly." (Dictionary.com 2006)

The use of "wizards, assistants and online assistants in the design and creation of a product, for example, desktop-published documents, slideshows, web sites." (IBO 2006)

Generally, training is an organized special session where attendance is required, tutorials are designed for self-paced learning and wizards are little 'tips' or 'how to' for small tasks.

## Templates

A template in the IT sense is a pre-made outline or format for a file to be made in. This can be for word processing documents, style sheets, web sheets, or a software template. A software template is "generally identified as any processing element that can be combined with a data model and processed by a template engine to produce a result document." (*Wikipedia, accessed February 24, 2007*)

The most commonly known type of templates are the ones used in word processing. These types of templates include types of letters (formal and informal), reports, etc. These templates can be browsed for online by going to Microsoft Word > File > New... > then in the window on the right of the screen click the "Templates on Office Online" link.

Check out Templates for more information on all kinds of templates.

## ***Ethical and Social Issues***

- **Reliability**
  - The step by step tutorial, training and wizards content is correct.
  - Will work every time and be useful
  - Can be confusing or hard to follow the steps
- **Globalization and Cultural Diversity**
  - The need for IT companies to consider global and cultural diversity preparing training and tutorial software (IBO 2006, i.e. language, level of language, content (images, text, ...etc.), suit learning styles
- **People and Machines**
  - The requirement of organizations to provide training when implementing change. (IBO 2006)
  - The balance in responsibility between an individual and an organization for training. (IBO 2006)
  - Speed and accuracy of tasks are improved
  - Work is made easier and more pleasant

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## References

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# GUI COMMAND-LINE INTERFACE

## GUI

GUI stands for 'Graphical User Interface'. GUI is a type of display format that is based more on the use of graphics than on text. GUI allows a computer user to, through the use of a keyboard or mouse, start programs, choose commands, or navigate through the computer by clicking on icons, pull-down menus, scroll bars, etc on the screen. Some well-known companies that offer GUI on their operating systems are Windows, Linux, and Mac.

The idea of the GUI was invented by researchers at the Stanford Research Institute in California. The researchers developed the use of hyperlinks manipulated by a mouse to perform certain tasks. This idea of using hyperlinks was further developed by Xerox so that instead of text-based commands, graphics would be used. In the late 1970s, Apple copied Xerox's idea of their GUI. Apple then became the first company to incorporate a graphical user interface in their Macintosh computers. IBM and Microsoft later used Apple's ideas for their own systems. Today, both Apple and Windows use a graphical user interface and both are continuing to develop it further. Windows Vista, Windows newest operating system, even has 3D GUI capabilities!



Windows Vista GUI



Apple GUI

### More Info:

To check out a time-line of GUI, click the link below:

<http://toastytech.com/guis/guitimeline.html>

## Command-line Interface

A CLI is also known as a '**C**ommand **L**ine **I**nterface.' A CLI is an interface on a computer's operating system (such as Windows, Linux or Mac) where the user manually enters text commands - using a keyboard - at the 'command line prompt'. Once the user is finished typing the command, they hit the 'enter' key and the computer will then execute the command. Once the command has been carried out, the user may then receive a text response back from the computer and the entire process begins again. Basic GUI commands are:

- [doSomething] [how] [toFiles]
- [doSomething] [how] [sourceFile] [destinationFile]
- [doSomething] [how] < [inputFile] > [outputFile]

CLIs are mainly used by programmers and system administrators for engineering and scientific purposes.

Today many computer users prefer to use a GUI instead of a CLI but some operating systems come with both anyway.

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root@kali:~# pwd
/home/kali
root@kali:~# cd /usr/portage/app-shells/bash
root@kali:~# ls -al /usr/portage/app-shells/bash
total 136
drwxr-xr-x 3 portage portage 1824 Jul 25 10:06 .
drwxr-xr-x 33 portage portage 1824 Jul 25 10:06 ..
-rw-r--r-- 1 root root 35900 Jul 25 10:06 ChangeLog
-rw-r--r-- 1 root root 27802 Jul 25 10:06 Manifest
-rw-r--r-- 1 portage portage 4846 Jul 25 11:37 bash-3.1-p17.ebuild
-rw-r--r-- 1 portage portage 5977 Mar 23 11:37 bash-3.2-209.ebuild
-rw-r--r-- 1 portage portage 6151 Apr 5 14:17 bash-3.2-p8-r1.ebuild
-rw-r--r-- 1 portage portage 5943 Jul 25 11:37 bash-3.2-p8.ebuild
-rw-r--r-- 1 portage portage 5543 Apr 5 14:17 bash-4.0-p1.ebuild
-rw-r--r-- 1 portage portage 6230 Apr 5 14:17 bash-4.0-p10.ebuild
-rw-r--r-- 1 portage portage 5648 Apr 14 05:52 bash-4.0-p17-r1.ebuild
-rw-r--r-- 1 portage portage 5532 Apr 8 10:21 bash-4.0-p17.ebuild
-rw-r--r-- 1 portage portage 5650 May 30 03:25 bash-4.0-p24.ebuild
-rw-r--r-- 1 portage portage 5650 Jul 25 11:37 bash-4.0-p28.ebuild
-rw-r--r-- 1 portage portage 2948 Mar 30 03:35 files
drwxr-xr-x 2 portage portage 512 Sep 9 04:15 metadata.xml
root@kali:~# cat /usr/portage/app-shells/bash/metadata.xml
<?xml version='1.0' encoding='UTF-8'?>
<!DOCTYPE pkgmetadata SYSTEM "http://www.gentoo.org/dtd/metadata.dtd">
<pkgmetadata>
  <herd-base-system><herd>
    base
  </herd-base-system>
  <flag name='bashdebug'>Log RLE commands typed into bash; should ONLY be used in restricted environments such as honeypots/<flag>
  <flag name='net'>Enable /dev/tcp/post/rpc redirection/<flag>
  <flag name='plugins'>Allow support for loading builtins at runtime via enable "<flag>"
</pkgmetadata>
root@kali:~# cat /usr/portage/app-shells/bash/sudo/etc/init.d/bluetooth status
bluetooth status
 * status: started
root@kali:~# cd /usr/portage/app-shells/bash && ping -c 1 en.wikipedia.org
PING rr.eses.wikileaks.org (91.190.174.2) 56(84) bytes of data:
64 : = rr.eses.wikileaks.org ping statistics =
 0 packets transmitted, 1 received, 0% packet loss, time 2ms
 rtt min/avg/max/dev = 0.820/0.820/0.820/0.800 ms
root@kali:~# cd /usr/portage/app-shells/bash && grep -l /dev/std && ./etc/fstab | cut -f1-dest=3
/dev/stdout none
/dev/stdin /
root@kali:~# cd /usr/portage/app-shells/bash && date
Sat Aug 8 02:42:24 MSD 2009
root@kali:~# cd /usr/portage/app-shells/bash && lsmod
Module Size Used by
rdmfs_wlan 23424 0
rdmfs_host 9696 1 rdmfs_wlan
cdc_ether 5572 1 rdmfs_host
usbnet 18688 3 rdmfs_wlan,rdmfs_host,cdc_ether
parport_LPC 3424 0
lpnr 238018 0
parport 29648 1 parport_LPC
l7do_wpt 12272 0
l7c_lbt 9308 0
root@kali:~# cd /usr/portage/app-shells/bash &&

```



# VOICE

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## What is voice recognition?

It is the process of converting a speech signal to a sequence of words, by means of an algorithm implemented as a computer program. This software can identify the speaking person and the actual words or sentences he/she is saying.

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## What do I need to be able to use voice recognition?

- 1.Computer
- 2.Voice recognition software
- 3.Microphone
- 4.Soundcard(part of a computer)
- 5.Speakers(to be able to listen what the computer says)



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## Who is the voice recognition software designed for?

The software was developed mostly for people with disabilities, or people that don't have both hands, therefore typing on a keyboard would be very difficult and slow process for them. Some people use this software because they find it cool and it makes their work easier, because they don't have to be typing all the time.



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## Does the software really work?

"Most commercial companies claim that recognition software can achieve between 98% to 99% accuracy (getting one to two words out of one hundred wrong) if operated under optimal conditions. These optimal conditions usually mean the test subjects have 1) matching speaker characteristics with the training data, 2) proper speaker adaptation, and 3) clean environment (e.g. office space). (This explains why some users, especially accented, might actually find that the recognition rate could be perceptually much lower than the expected 98% to 99%)." [www.wikipedia.com](http://www.wikipedia.com)

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## How does it work?

"Voice recognition process of converting a speech signal to a sequence of words, by means of an algorithm implemented as a computer program as I have mentioned above. The computer has a database full of different words stored in, every word as a different file, therefore while speaking, the computer recognizes the word(if this word is in the database) and matches it to the file, which is decoded by the computer and we can see as a written word on our computer screen." [www.answers.com](http://www.answers.com)

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**References:** [www.answers.com](http://www.answers.com) /[www.wikipedia.com](http://www.wikipedia.com)